BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK: IMPROVEMENTS TO ROADS AND DRAINS ADJACENT TO ST. JOHNS SCHOOL AT AMRUTHAHALLI IN WARD NO 07 - BYATARAYANAPURA, KODIGEHALLI SUB DIVISION.

CONSULTANT:

BVH CONSULTING ENGINEERS

 # 41/2, 6TH MAIN ROAD JNANAJYOTHI NAGAR,
MALATHALLI, BANGALORE-560056
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Bruhat Bangalore Mahanagara Palike

BYTARAYANAPURA DIVISION

Job No: 007-16-000043 26618

Name of Agency :- Benaka Developers and projects Pvt. Ltd

Bill No :- 1st Part Bill

Name of work: Improvements to Roads and Drains Adjacent to St. Johns school at Amruthahalli in ward No 07 - Byatarayanapura, Kodigehalli Sub Division.

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Measurements recorded on:								
	Desilt	Cum							
	Varadaraja Layout 1st Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-60		2	30.00	0.50	0.60	18.00		
	60-99		2	39.00	0.50	0.60	23.40		
	1st A Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-60		2	30.00	0.50	0.60	18.00		
	60-74		2	14.00	0.50	0.60	8.40		
	2nd Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-46		2	16.00	0.50	0.60	9.60		
	Varadaraja Layout RHS cross roads								
	7th Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-67		2	37.00	0.50	0.60	22.20		
	6th Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-57		2	27.00	0.50	0.60	16.20		
	5th Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-53		2	23.00	0.50	0.60	13.80		
	4th Cross Road								
	0-30		2	30.00	0.50	0.60	18.00		
	30-56		2	26.00	0.50	0.60	15.60		
	3rd Cross Road								
	0-68		2	30.00	0.50	0.60	18.00		
			2	38.00	0.50	0.60	22.80		
	Cross Road 1								
	0-30		2	30.00	0.60	0.40	14.40		
	30-48		2	18.00	0.60	0.40	8.64		
	Cross Road 2								
	0-30		2	30.00	0.60	0.40	14.40		
	30-68		2	38.00	0.60	0.40	18.24		
	Over Burden Earth								
	At 7th cross roads		2	28.00	2.70	0.35	52.92		
	At 6th cross roads		2	29.00	2.20	0.45	57.42		
	At 5th cross roads		2	24.00	2.00	0.55	52.80		

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Assistant Executive Engineer

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	At 4th cross roads		2	25.50	2.80	0.60	85.68		
	LHS At 3rd cross roads		2	27.00	2.00	0.60	64.80		
	RHS At 3rd cross roads		2	25.00	2.00	0.60	60.00		
					Total Qty Cum		741.30	196.00	145294.80
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Measurements recorded on:								
	BS Slab Drain	Sqm							
	Damaged Drain								
	Varadaraja Layout 1st Cross Road								
	0-30 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	30-60		1	30.00	0.40		12.00		
			2	30.00	0.45		27.00		
	60-99 bottom		1	99.00	0.40		39.60		
	sides		2	99.00	0.45		89.10		
	1st A Cross Road								
	0-30 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	30-60 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	60-74 bottom		1	14.00	0.40		5.60		
	sides		2	14.00	0.45		12.60		
	2nd Cross Road								
	0-30 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	30-46 bottom		1	16.00	0.40		6.40		
	sides		2	16.00	0.45		14.40		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30 bottom		1	30.00	0.40		12.00		
	sides		2	30.00	0.45		27.00		
	BS Cover slabs								
	Varadaraja layout 7th cross RHS		1	27.00	1.20		32.40		
	Varadaraja layout 6th cross cross RHS		1	5.00	1.20		6.00		
			1	15.00	1.20		18.00		
			1	4.00	1.00		4.00		
	Cross Road 1								
	0-30 Bottom		1	30.00	0.45		13.50		
	sides		2	30.00	0.50		30.00		
	30-48 Bottom		1	18.00	0.45		8.10		
	sides		2	18.00	0.50		18.00		
	Cross Road 2								
	0-30 Bottom		1	30.00	0.45		13.50		
	sides		2	30.00	0.50		30.00		
	30-70 Bottom		1	40.00	0.45		18.00		

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Assistant Executive Engineer

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	sides		2	40.00	0.50		40.00		
					Total Qty Sqm		633.20	85.00	53822.00
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS slab drain / missing	sqm							
	Varadaraja layout 2nd cross RHS bottom		1	40.00	0.40		16.00		
	sides		2	40.00	0.45		36.00		
					Total Qty Sqm		52.00	699.00	36348.00
4	KSRRB M300- Scarifying Existing Granular Surface to a Depth of 50mm by Manual Means. KSRRB M300-52.1. Scarifying the existing granular road surface to a depth of 50mm and disposal of scarified material and complete as per specifications. MORTH Specification No. 305.4.3 (P.No.148, I.No.19.58 of PW,P&IWTD S.R 2016-17)								
	Measurements recorded on:								
	Varadaraja Layout 1st Cross Road	**sqm**							
	0-30		1	30.00	(5.8+6)/2		177.00		
	30-60		1	30.00	(6+6.1)/2		181.50		
	60-99		1	39.00	(6.1+6.5)/2		245.70		
	1st A Cross Road								
	0-30		1	30.00	(4.3+4.8)/2		136.50		
	30-60		1	30.00	(4.8+5)/2		147.00		
	60-74		1	14.00	(5+5.2)/2		71.40		
	2nd Cross Road								
	0-30		1	30.00	(4.7+4.2)/2		133.50		
	30-46		1	16.00	(4.2+4)/2		65.60		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		1	30.00	(4.7+5)/2		145.50		
	30-70		1	40.00	(5+6.5)/2		230.00		
	6th Cross Road								
	0-30		1	30.00	(6+5.2)/2		168.00		
	30-60		1	30.00	(5.2+5.5)/2		160.50		
	5th Cross Road								
	0-30		1	30.00	(5.1+5)/2		151.50		
	30-55		1	25.00	(5+4.8)/2		122.50		
	4th Cross Road								
	0-30		1	30.00	(5+5.6)/2		159.00		
	30-58		1	28.00	(5.6+5.2)/2		151.20		
	3rd Cross Road								
	0-70		1	30.00	(5+4.2)/2		142.50		
			1	40.00	(4.2+5)/2		184.00		
	Cross Road 1								
	0-30		1	30.00	(4+4.6)/2		129.00		
	30-48		1	18.00	(4.6+4.2)/2		79.20		
	Cross Road 2								
	0-30		1	30.00	(4.6+4.1)/2		130.50		

Abstract.N.D AE(Nzl) 08/01/18

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Executive Engineer

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	30-68		1	38.00	(4.1+5.4)/2		180.50		
					TOTAL QTY sqm		3292.10	48.00	158020.80
5	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Measurements recorded on:								
	Varadaraja Layout 1st Cross Road	cum							
	0-30		1	30.00	(5.8+6)/2	0.25	44.25		
20	30-60		1	30.00	(6+6.1)/2	0.25	45.38		
	60-99		1	39.00	(6.1+6.5)/2	0.25	61.43		
	1st A Cross Road								
	0-30		1	30.00	(4.3+4.8)/2	0.25	34.13		
	30-60		1	30.00	(4.8+5)/2	0.25	36.75		
	60-74		1	14.00	(5+5.2)/2	0.25	17.85		
	2nd Cross Road								
	0-30		1	30.00	(4.7+4.2)/2	0.25	33.38		
	30-46		1	16.00	(4.2+4)/2	0.25	16.40		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		1	30.00	(4.7+5)/2	0.25	36.38		
	30-70		1	40.00	(5+6.5)/2	0.25	57.50		
	6th Cross Road								
	0-30		1	30.00	(6+5.2)/2	0.25	42.00		
	30-60		1	30.00	(5.2+5.5)/2	0.25	40.13		
	5th Cross Road								
	0-30		1	30.00	(5.1+5)/2	0.25	37.88		
	30-55		1	25.00	(5+4.8)/2	0.25	30.63		
	4th Cross Road								
	0-30		1	30.00	(5+5.6)/2	0.25	39.75		
	30-58		1	28.00	(5.6+5.2)/2	0.25	37.80		
	3rd Cross Road								
	0-30		1	30.00	(5+4.2)/2	0.25	34.50		
	30-70		1	40.00	(4.2+5)/2	0.25	46.00		
	Cross Road 1								
	0-30		1	30.00	(4+4.6)/2	0.25	32.25		
	30-48		1	18.00	(4.6+4.2)/2	0.25	19.80		
	Cross Road 2								
	0-30		1	30.00	(4.6+4.1)/2	0.25	32.63		
	30-68		1	38.00	(4.1+5.4)/2	0.25	45.13		
					Total Qty Cum		821.90	1855.00	1524624.50

AE(Nor) 11/01/18

Assistant Executive Engineer
Kodigehalli Sub Division
Bangalore Mahanagara Palike

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
6	KSRRB M500-6. Providing and applying **primer coat with S.S. bitumen emulsion on prepared surface of granular base** such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg /sqm using mechanical means complete as per specifications.As per MORTH Specification No. 502 with all lead and lift loading and unloading and all other incidential charges etc.complete as per specification and direction of the engineer-in-charge of the work								
	Measurements recorded on:								
	Varadaraja Layout 1st Cross Road	**sqm**							
	0-30		1	30.00	(5.8+6)/2		177.00		
	30-60		1	30.00	(6+6.1)/2		181.50		
	60-99		1	39.00	(6.1+6.5)/2		245.70		
	1st A Cross Road								
	0-30		1	30.00	(4.3+4.8)/2		136.50		
21	30-60		1	30.00	(4.8+5)/2		147.00		
	60-74		1	14.00	(5+5.2)/2		71.40		
	2nd Cross Road								
	0-30		1	30.00	(4.7+4.2)/2		133.50		
	30-46		1	16.00	(4.2+4)/2		65.60		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		1	30.00	(4.7+5)/2		145.50		
	30-70		1	40.00	(5+6.5)/2		230.00		
	6th Cross Road								
	0-30		1	30.00	(6+5.2)/2		168.00		
	30-60		1	30.00	(5.2+5.5)/2		160.50		
	5th Cross Road								
	0-30		1	30.00	(5.1+5)/2		151.50		
	30-55		1	25.00	(5+4.8)/2		122.50		
	4th Cross Road								
	0-30		1	30.00	(5+5.6)/2		159.00		
	30-58		1	28.00	(5.6+5.2)/2		151.20		
	3rd Cross Road								
	0-70		1	30.00	(5+4.2)/2		142.50		
			1	40.00	(4.2+5)/2		184.00		
	Cross Road 1								
	0-30		1	30.00	(4+4.6)/2		129.00		
	30-48		1	18.00	(4.6+4.2)/2		79.20		
	Cross Road 2								
	0-30		1	30.00	(4.6+4.1)/2		130.50		
	30-68		1	38.00	(4.1+5.4)/2		180.50		
					Total Qty Sqm		**3292.10**	**31.00**	**102055.10**
7 27	KSRRB 500-7. Providing and applying **tack coat using 80/100 grade bitumen**(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH Chapter 5 with all lead and lift loading and unloading and all other incidential charges etc.complete as per specification and direction of the engineer-in-charge of the work								
	Measurement recorded on:								
	Varadaraja Layout 1st Cross Road	**sqm**							
	0-30		1	30.00	(5.8+6)/2		177.00		
	30-60		1	30.00	(6+6.1)/2		181.50		

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Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	60-99		1	39.00	(6.1+6.5)/2		245.70		
	1st A Cross Road								
	0-30		1	30.00	(4.3+4.8)/2		136.50		
	30-60		1	30.00	(4.8+5)/2		147.00		
	60-74		1	14.00	(5+5.2)/2		71.40		
	2nd Cross Road								
	0-30		1	30.00	(4.7+4.2)/2		133.50		
	30-46		1	16.00	(4.2+4)/2		65.60		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		1	30.00	(4.7+5)/2		145.50		
	30-70		1	40.00	(5+6.5)/2		230.00		
	6th Cross Road								
	0-30		1	30.00	(6+5.2)/2		168.00		
	30-60		1	30.00	(5.2+5.5)/2		160.50		
	5th Cross Road								
	0-30		1	30.00	(5.1+5)/2		151.50		
	30-55		1	25.00	(5+4.8)/2		122.50		
	4th Cross Road								
	0-30		1	30.00	(5+5.6)/2		159.00		
	30-58		1	28.00	(5.6+5.2)/2		151.20		
	3rd Cross Road								
	0-70		1	30.00	(5+4.2)/2		142.50		
			1	40.00	(4.2+5)/2		184.00		
	Cross Road 1								
	0-30		1	30.00	(4+4.6)/2		129.00		
	30-48		1	18.00	(4.6+4.2)/2		79.20		
	Cross Road 2								
	0-30		1	30.00	(4.6+4.1)/2		130.50		
	30-68		1	38.00	(4.1+5.4)/2		180.50		
					Total Qty Sqm		**3292.10**	**13.00**	**42797.3**
8	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Measurement recorded on:								
	Varadaraja Layout 1st Cross Road	cum							
	0-30		1	30.00	(5.8+6)/2	0.04	7.08		
	30-60		1	30.00	(6+6.1)/2	0.04	7.08		
	60-99		1	39.00	(6.1+6.5)/2	0.04	9.20		
	1st A Cross Road								
	0-30		1	30.00	(4.3+4.8)/2	0.04	7.08		
	30-60		1	30.00	(4.8+5)/2	0.04	7.08		
	60-75		1	15.00	(5+5.3)/2	0.04	3.09		

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AE(W2) 26/01/18

Assistant Executive Engineer
Kodigehalli Sub Division

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	2nd Cross Road								
	0-30		1	30.00	(4.7+4.2)/2	0.04	7.08		
	30-50		1	20.00	(4.2+4)/2	0.04	4.72		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		1	30.00	(4.7+5)/2	0.04	7.08		
	30-70		1	40.00	(5+6.5)/2	0.04	9.44		
	6th Cross Road								
	0-30		1	30.00	(6+5.2)/2	0.04	7.08		
	30-60		1	30.00	(5.2+5.5)/2	0.04	7.08		
	5th Cross Road								
	0-30		1	30.00	(5.1+5)/2	0.04	7.08		
	30-55		1	25.00	(5+4.8)/2	0.04	5.90		
	4th Cross Road								
	0-30		1	30.00	(5+5.6)/2	0.04	7.08		
	30-58		1	28.00	(5.6+5.2)/2	0.04	6.61		
	3rd Cross Road								
	0-70		1	30.00	(5+4.2)/2	0.04	7.08		
			1	40.00	(4.2+5)/2	0.04	9.44		
	Cross Road 1								
	0-30		1	30.00	(4+4.6)/2	0.04	5.16		
	30-48		1	18.00	(4.6+4.2)/2	0.04	3.17		
	Cross Road 2								
	0-30		1	30.00	(4.6+4.1)/2	0.04	5.22		
	30-68		1	38.00	(4.1+5.4)/2	0.04	7.22		
					Total Qty Cum		**147.05**	**8438.00**	**1240807.90**
9 30	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Measurement recorded on:								
	Edge line	**Sqm**							
	Varadaraja Layout 1st Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-60		2	30.00	0.10		6.00		
	60-99		2	39.00	0.10		7.80		
	1st A Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-60		2	30.00	0.10		6.00		
	60-75		2	15.00	0.10		3.00		
	2nd Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-50		2	20.00	0.10		4.00		
	Varadaraja Layout RHS cross Roads								
	7th Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-70		2	40.00	0.10		8.00		
	6th Cross Road								

Sl No	Description of Work	Unit	No.	L	B	D	Qty	Rate	Amount
	0-30		2	30.00	0.10		6.00		
	30-60		2	30.00	0.10		6.00		
	5th Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-55		2	25.00	0.10		5.00		
	4th Cross Road								
	0-30		2	30.00	0.10		6.00		
	30-58		2	28.00	0.10		5.60		
	3rd Cross Road								
	0-70		2	30.00	0.10		6.00		
			2	40.00	0.10		8.00		
	Cross Road 1								
	0-30		2	30.00	0.10		6.00		
	30-48		2	18.00	0.10		3.60		
20	Cross Road 2								
	0-30		2	30.00	0.10		6.00		
	30-68		2	38.00	0.10		7.60		
	Centre line		108	3.00	0.10		32.40		
					Total Qty Sqm		163.00	570.00	92910
					Total Construction Cost				3396680.40

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AE(HQ) 30/01/18

Assistant Executive Engineer
Kodigehalli Sub Division
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